

Hospital-Acquired Pneumonia and Ventilator-Associated Pneumonia

Definitions:

Hospital-Acquired Pneumonia (HAP): Pneumonia that develops >48 hours after admission

Ventilator-Associated Pneumonia (VAP): Pneumonia that develops >48 hours after endotracheal intubation

Initial work-up/assessment:

1. Cultures of blood, sputum, endotracheal aspirate and/or bronchoscopy specimen
2. If there is concern for respiratory viruses or influenza then respiratory viral panel should be sent.

Empiric therapy:

First-line therapies:

Cefepime 2g IV Q8h + IV vancomycin*

Alternatives:

1. Piperacillin-tazobactam 3.375g IV q8h extended infusion OR ceftazidime 2g IV Q8h OR can be used as alternatives to cefepime**
2. Aztreonam 2g IV Q8h + vancomycin (**if severe allergy to penicillin: IgE-mediated reaction, Stevens Johnson syndrome, or TEN**)
3. May use Linezolid 600mg PO q12h in place of IV vancomycin if allergic
 - *Consider ID consultation if the patient is not clinically improving on empiric therapy or if an MDR pathogen grows from culture.*

Duration of treatment: 7 days of therapy in uncomplicated cases, though specific pathogens (such as Pseudomonas) may require longer duration and ID guidance.

*If no MRSA isolated and patient is improving, consider stopping vancomycin after 48 hours

**Avoid combination therapy with Vancomycin and Zosyn due to risk of acute kidney injury.